10-12-01

GP1644

UNMC 5735
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of S. Sanderson
Serial No. 09/051,685
Filed August 19, 1998
Confirmation No. 4256
For COMPOSITIONS AND METHODS FOR ENHANCING IMMUNE RESPONSES MEDIATED BY ANTIGEN-PRESENTING CELLS
Examiner F. Vander Vegt

Art Unit 1644

#22

10/15/01

October 10, 2001

RESPONSE TO OFFICE ACTION

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

SIR:

In response to the Office action of July 12, 2001, please consider the following remarks:

REMARKS

Claims 1, 3-17, and 25 are currently pending in the application. Claims 1 and 3-17 have been allowed. Claim 25 stands rejected.

I. 35 U.S.C.102(b) Rejection

Reconsideration is requested of the rejection of claim 25 under 35 U.S.C. 102(b) in view of Tong.[1]

Claim 25 is directed toward antibodies to a selected immunogen wherein the antibodies are produced by immunizing an animal with an immunogenically effective amount of the immunogen and then recovering the antibodies produced by the animal. Importantly, the selected immunogen to which the antibodies are

[1]Tong et al., (1990) Eur. J. Immunol. 20:1635-1639.

raised against is the molecular adjuvant of claim 1. The molecular adjuvant, as defined by claim 1, comprises:

> ...a targeting ligand having binding affinity for a receptor present on an antigen presenting cell, said receptor being of a type that is internalized upon binding of a ligand and that transmits a signal in the antigen presenting cell that stimulates antigen processing and presentation by the antigen presenting cell, said targeting ligand being covalently linked to said immunogen, whereby binding of said molecular adjuvant to said antigen presenting cell receptor activates said antigen presenting cell, effecting delivery of said immunogen to an antigen presenting pathway of said antigen presenting cell.

Tong, on the other hand, generally discloses that when mice are immunized with monoclonal antibodies raised against **dextran** that immune response to challenge with the acetylcholine receptor is suppressed. Additionally, Tong discloses a potential mechanism for this apparent antigen-induced cross-regulation.

Claim 25, accordingly, is not anticipated by the Tong disclosure. The Office, however, in support of its rejection asserts that "the Tong et al. reference teaches the production of monoclonal antibodies to the selected immunogen dextran. While the Tong et al. reference does not teach Applicant's specific method of generating antibodies to a selected immunogen, the claim is a compound claim and is presented in a product by process manner."[2] Applicants agree with the Office that claim 25 is a product by process claim. The novel portion of the claim, therefore, is not the method employed to produce the antibodies, but rather the antibodies produced by the method. Contrary to the Office's assertion, nowhere does Tong disclose the production of antibodies raised against an immunogen with the properties required by claim 25. These properties include, for example, that the immunogen is a **targeting ligand** having **binding affinity for a receptor** present on an **antigen presenting cell**, and that

[2]Paper No. 19, page 2.

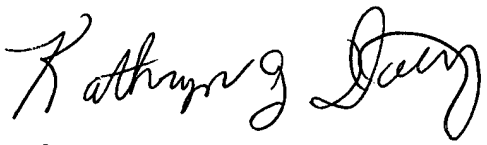
the receptor is a type that is internalized upon binding of a ligand and that transmits a signal in the antigen presenting cell that stimulates antigen processing and presentation by the antigen presenting cell. Dextran, the immunogen disclosed in Tong, does not possess any of the properties of the immunogen of claim 25. Dextran is merely a high molecular weight glucan. The Tong reference does not disclose that dextran is a "targeting ligand" or that it has "binding affinity for a receptor present on an antigen presenting cell" or that it has any of the other properties of the immunogen of claim 25, for that matter. Accordingly, the antibodies of claim 25 are different than the dextran antibodies disclosed in Tong.

Because the cited art does not disclose each and every element of the invention defined by claim 25, the rejection of this claim on the basis of anticipation is not proper. Accordingly, Applicants respectfully traverse this basis of rejection of claim 25 and request its reconsideration and withdrawal.

II. Conclusion

In light of the foregoing, Applicants request withdrawal of claim rejections and solicit an allowance of the claims. The Examiner is invited to contact the undersigned attorney should any issue remain unsolved.

Respectfully submitted,



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